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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,899	04/21/2004	Masatoshi Masuda	SCCO.016AUS	5647

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EXAMINER	
KHOLDEBARIN, IMAN K	

ART UNIT	PAPER NUMBER
3737	

NOTIFICATION DATE	DELIVERY MODE
08/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/828,899	MASUDA, MASATOSHI	
	Examiner	Art Unit	
	I Kenneth Kholdebarin	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/28/05 and 06/07/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent

2. Claims 1 –8, 11,12, 13, 19-21,23, 24 as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Frattarola et al. (US 2003/0013947).

Re Claim 1-8 and 11: Frattarola discloses propagation properties of low frequency ultrasonic waves, such as transmittal time and absorbency, vary in a glucose concentration dependent manner. Because low frequency ultrasonic waves are glucose concentration dependent, ultrasonic frequency waves can be utilized to measure glucose concentrations in blood.

Furthermore, because both high and low ultrasonic frequency waves have similar propagation properties through body tissue, a combination of measurements using high and low frequency ultrasonic waves allows for a calibrated, non-invasive measurement of blood glucose concentration. (See Paragraph 0027)

In addition to the electronic circuitry that processes the ultrasonic frequency signals, the apparatus may, instead of having the transducer contact the subject tissue directly, further

comprise a contact pad 18 that contacts the ultrasound transducer and the subject tissue. The contact pad may be a conductive membrane or suave that facilitates ultrasonic frequency conduction from the ultrasonic transmitter to the subject tissue, and from the subject tissue to the ultrasonic receiver or transceiver.

FIG. 3

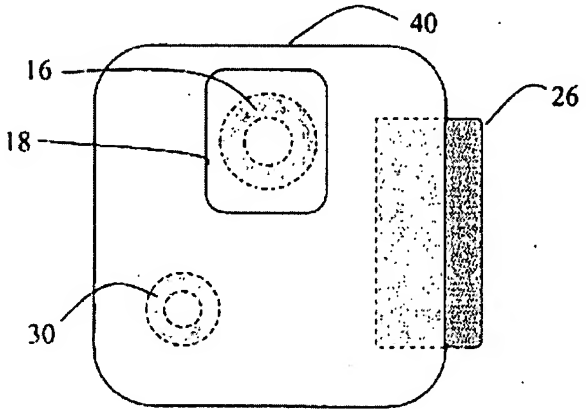
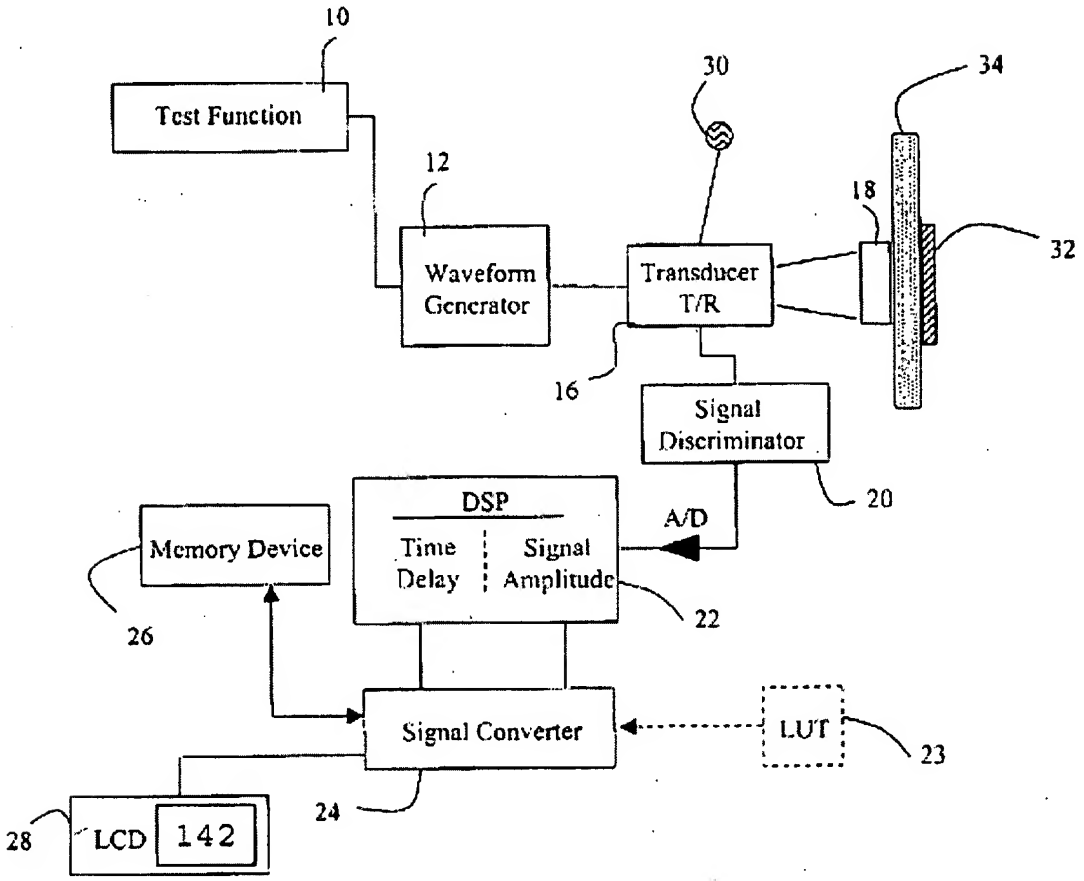


FIG. 4

Re Claim 2-8 : Frattarola discloses the method and the system of ultrasound therapy with conductive pad and multiple ultrasound transducer; where the ultrasound transducer demonstrated next to each other with circular shape; wherein each ultrasound transducer could be on one or several separated pads.

Furthermore Frattarola teaches ultrasound waves are high frequency sound waves, typically above 2 MHz., (See Paragraph 23).

Re Claim 14-19: Frattarola discloses the system shown below which has a wave generator a control DSP unit, ultrasound transducer in contact wit the surface of the tissue.



Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-10, 13 as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Frattarola in view of Krauth (EP 465,870).

Frattarola teaches the ultrasound therapy where each transducer is located on a conductive pad that is connected to a low ultrasonic frequency wave. Frattarola does not teach the apparatus having a longitudinal shape with a gripper to be held by hand.

Krauth however, teaches the ultrasound therapy with ultrasound transducer having the gel layer, longitudinal shape and a gripper to be held by hand.

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention was made to have a hand held ultrasound therapy system with a gel layer that would make the movement of the ultrasound transducer easier on the surface of the skin and furthermore make the transmitting of the ultrasonic waves more pragmatic.

5. Claims 21 and 22 as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Frattarola in view of Kaufman (US 6,251,088).

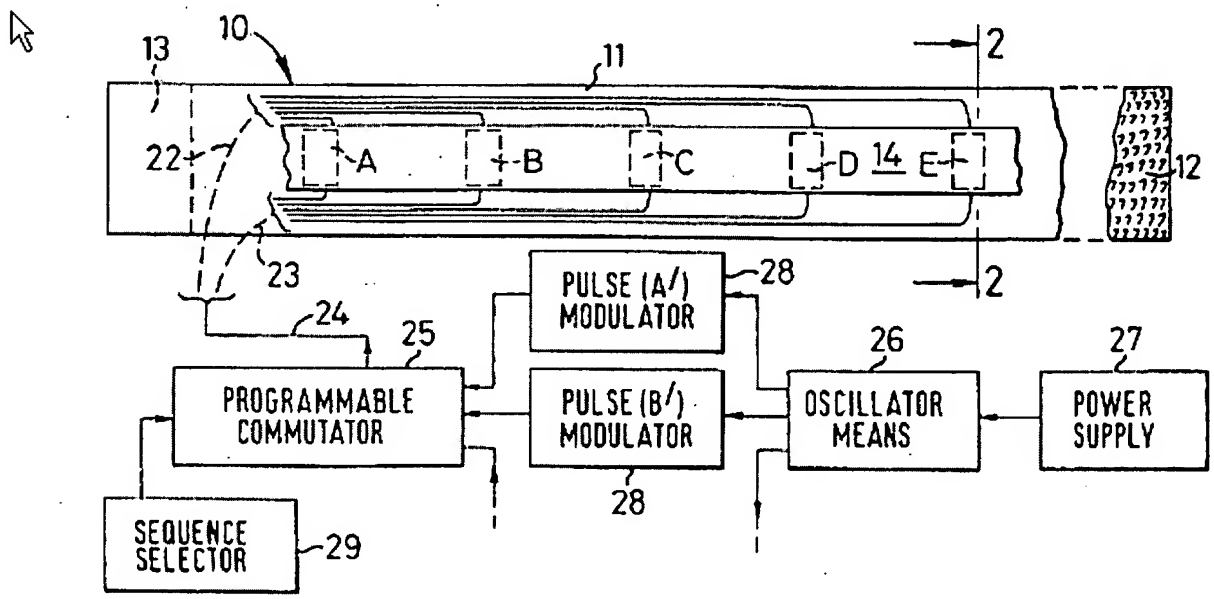
Although frattarola does not teach the low frequency to be between 1Hz to 50Hz, Kaufman teaches the ultrasound therapy where the ultrasonic wave is delivered by a transducer placed on skin overlying the plantar fascia; the excitation signal is repeated in the range of 1 Hz to 15,000 Hz.

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention was made to consider the low frequency range of 1 Hz to 15,000 Hz for ultrasound therapy of the tissue such as skin.

6. Claims 21 and 22, 30-42 as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Frattarola in view of Young (US 5,656,015).

Although Frattarola does not teach the sequential cycles of applying the low frequency to ultrasound transducer Young teaches the method and the system where the current waves are applied to the transducer sequential and as the result the waveforms shown in Fig. 14 have a sinusoidal wave form.

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention was made to apply sequence pulses to the ultrasound therapy device to excite different section of the tissue at different time.



7. as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Frattarola in view of Young (US 5,656,015) further in view of of Kaufman (US 6,251,088).

Re Claim 30-42: Frattarola teaches system and method of ultrasound therapy using ultrasound transducer and low frequency, where the ultrasound transducers are located on a conductive pad(s). Frattarola does not teach about the sequence selection of exciting the ultrasound transducer and Frattarola does not teach the range of the low frequency of the ultrasound transducer waves, however Young disclose the sequence selctor where the pulse A and B modulator are controlled by the programmable device (25) to control the longitude device where the ultrasound transducer are located at. And further Kaufman discloses the ultrasound therapy for the tissue where the low frequency range is discloses between 1 Hz to 15,000 Hz. Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to combine the teaching of Young with the method and system thought by Frattarola and Kaufman to use the make the ultrasound therapy device and method to apply a low current excitement to the ultrasound unit in order to treat someone dermatology disease.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I Kenneth Kholdebarin whose telephone number is 571-270-1347. The examiner can normally be reached on M-F 8 AM- 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IKK
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07/30/2007

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